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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,292	12/01/2000	Jonathan Yen	10004133-1	4936

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

JACK, TODD M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 10/05/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/728,292

Applicant(s)

YEN ET AL.

Examiner

Todd M Jack

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1-3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein (6,601,172 B1) in view of Hayosh.

Claim 1: Epstein teaches the host creates a time stamp containing the author's signature, receipt time, notary id, sequence number, and customer id (col. 3, lines 15-17), the host hashes the time stamp, and signs the time stamp (col. 4, lines 48-50). Epstein fails to teach modulating a base image with a graphical encoding of the signed message to produce a marked image. Hayosh teaches the pattern code is included in clear text in the bar code and is included in data that is digitally signed so that no data could be altered without its being detected (col. 14, lines 19-22). Prevention of alteration is accomplished by modulating the image data with the clear text transmission.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the transmission method by Epstein to include graphical encoding of the signed message. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to

do so, as suggested by Hayosh, in order to provide the capability to produce a stamp, which is resistant to tampering.

Claim 2: Epstein teaches a server encrypts hash of combination using server's private key to form server's signature for second compression (Fig. 3B, #247).

Claim 3: Epstein teaches a one-way hash of the document is produced and the hash is encrypted using a private key of the owner of the document to form a so-called digital signature (col. 1, lines 18-21).

Claim 4: Epstein teaches a server encrypts hash of combination using server's private key to form server's signature for second compression (Fig. 3B, #247).

Claim 5: Epstein teaches receiving a time-stamp with a digital time and a notary's signature (col. 7, lines 20-24).

Claim 6: Epstein fails to teach a signed message includes an image of a handwritten signature. Hayosh teaches a digital certificate in the 2-D bar code produced by the public key digital signature system (col. 8, lines 56-59). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by including a certificate. This modification would have been obvious because a person having ordinary skill in the art would have been

motivated to do so, as suggested by Hayosh, in order to provide the capability to authenticate the message.

Claim 7: Epstein fails to teach the base image includes an image comprises vectorizing the handwritten signature image. Hayosh teaches a clear text contained in the bar code is further protected by being part of the message that is digitally signed (col. 7, lines 20-26). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by including a handwritten signature. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to validate the sender of the message.

Claim 8: Epstein fails to teach modulating the base image comprises vectorizing the handwritten signature image. Hayosh teaches a graphic file format means a raster format for data that is bit mapped. The file format allows the image of a picture to be inserted into a page with standard text. (col. 7, lines 26-57)

Claim 9: Epstein fails to teach comprising obtaining a set of base control points for the vectorized handwritten signature image, and encoding the information by displacing the base control points to obtain a marked set of control points from which the marked image is produced. Hayosh teaches a bar code encoder software which chooses the parameters of numbers of rows or columns, element width, element height, and the

degree of error correction (col. 14, lines 31-37). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by including a handwritten signature. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to validate the sender of the message.

Claim 16: Epstein teaches the host creates a time stamp containing the author's signature, receipt time, notary id, sequence number, and customer id (col. 3, lines 15-17), the host hashes the time stamp, and signs the time stamp (col. 4, lines 48-50). Epstein fails to teach modulating a base image with a graphical encoding of the signed message to produce a marked image. Hayosh teaches the pattern code is included in clear text in the bar code and is included in data that is digitally signed so that no data could be altered without its being detected (col. 14, lines 19-22). Prevention of alteration is accomplished by modulating the image data with the clear text transmission.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the transmission method by Epstein to include graphical encoding of the signed message. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to provide the capability to produce a stamp, which is resistant to tampering.

Claim 20: Epstein teaches the host hashes the time stamp, and signs the time stamp (col. 4, lines 48-50). Epstein fails to teach modulate a base image with a graphical encoding of the signed message to produce a marked image. Hayosh teaches the pattern code is included in clear text in the bar code and is included in data that is digitally signed so that no data could be altered without its being detected (col. 14, lines 19-22). Prevention of alteration is accomplished by modulating the image data with the clear text transmission.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the transmission method by Epstein to include graphical encoding of the signed message. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to provide the capability to produce a stamp, which is resistant to tampering.

Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein in view of Hayosh, further in view of Vanstone (6,212,281 B1).

Claim 10: Epstein fails to teach comprising extracting the signed message from the marked image. Vanstone teaches a signature component is used in digital signature protocols that allow the recovery of the short-term public key and hence the encrypted key from a hash of the encrypted message (col. 4, lines 61-65).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by extracting the signed message from the marked image. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to identify the sender of the message.

Claim 11: Epstein teaches a module includes apparatus to hash the time stamp and decrypt the notary's signature using the notary's public key and compare the results to determine the origin of the time stamp and that the contents have not been altered (col. 7, lines 24-28).

Claim 12: Epstein teaches a module includes apparatus to hash the time stamp and decrypt the notary's signature using the notary's public key (col. 7, lines 28-33).

Claim 13: Epstein teaches a module receive, a hash of the original document server's signature and notary's signature for the original document (col. 7, lines 33-41).

Claim 14: Epstein teaches a module includes apparatus to hash the time stamp and decrypt the notary's signature using the notary's public key (col. 7, lines 28-33).

Claim 15: Epstein teaches a server receives a digitally signed document from an authoring station. The program module performs a one-way hash on the document, decrypts the digital signature and compares the result (col. 8, lines 4-9).

Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein in view of Vanstone.

Claim 17: Epstein teaches a module includes apparatus to hash the time stamp and decrypt the notary's signature using the notary's public key and compare the results to determine the origin of the time stamp and that the contents have not been altered (col. 7, lines 24-28). Epstein fails to teach decoding the extracted signed message to produce a decoded message and extracting from the decoded message information encoded in the marked image. Vanstone teaches the recipient recovers the message by hashing the message string and utilizing the value to recover the encryption key (col. 2, lines 41-43) and the message can be recovered from the message string (col. 2, 42-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by decoding the signed message to produce a decoded message and to extract from the decoded message information. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to transmit information securely and be able to extract it later for use.

Claim 18: Epstein teaches the viewer hashes the image time stamp and decrypts the notary's image signature to verify the image time stamp (col. 5, lines 34-43). The hashed time stamp can only be compared favorably to a like digital signal. Epstein teaches a module decrypts the signature, hashes the document, combines the hash, and compares the results to verify the origin of the revision and original documents and that the revision has not been altered since signing. Epstein fails to teach decrypting the encrypted original cryptographic hash with a public key. Vanstone teaches decrypting the message with the transmitter's public key.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by decrypting the encrypted original cryptographic hash with a public key. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to use the hash for comparison and authentication.

Claim 19: Epstein teaches a module decrypts the signature, hashes the document, combines the hash, and compares the results to verify the origin of the revision and original documents and that the revision has not been altered since signing (col. 8, lines 23-28). Epstein fails to teach decode the extracted signed message to produce a decoded message and extract from the decoded message information encoded in the marked image. Vanstone teaches the recipient recovers the message by hashing the

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message string and utilizing the value to recover the encryption key (col. 2, lines 41-43) and the message can be recovered from the message string (col. 2, 42-44).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system by Epstein by decoding the signed message to produce a decoded message and to extract from the decoded message information. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by Hayosh, in order to transmit information securely and be able to extract it later for use.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd M Jack whose telephone number is 703-305-1027. The examiner can normally be reached on M-Th, alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady, can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

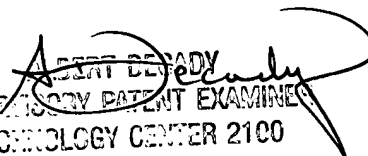
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Todd Jack  
Art Unit 2133

September 20, 2004



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